

LISTING OF THE CLAIMS

- 1-6. (Cancelled).
7. (Currently Amended) A method for virtually navigating an environment in three dimensions, the method comprising:
 - defining virtual paths in the environment;
 - capturing images of the environment from a plurality of cameras;
 - receiving a navigation request;
 - generating a plurality of synthetic images corresponding to viewpoints along the previously defined virtual paths; and
 - transmitting a sequence of synthetic images corresponding to viewpoints along ~~at least two of the virtual~~ [[paths]] path that most closely matches the navigation request,wherein ~~the transmitted sequence corresponds to the navigation request, the at least two of the virtual paths share a common junction, and~~ at least one of the synthetic images has a perspective different than any of the plurality of cameras.
8. (Cancelled).
9. (Cancelled).
10. (Previously Presented) The method of claim 7, wherein positions of the virtual paths and viewpoints are based at least in part on positions of the cameras.
11. (Cancelled).

12. (Previously Presented) The method of claim 7, wherein the defining step is performed once and the capturing, receiving, generating, and transmitting steps are performed repeatedly.

13. (Currently Amended) A method for efficiently providing a virtual presence within a three-dimensional scene to a plurality of simultaneous users, the method comprising:

defining a plurality of virtual paths within the scene, each path terminating at a junction;

defining a plurality of viewpoints along each virtual path;

capturing real-time images of the scene from a plurality of cameras;

generating a synthetic image corresponding to each viewpoint based on the captured real-time images;

combining synthetic images corresponding to the plurality of viewpoints along a predefined virtual path to produce a sequence of images;

receiving a navigation request from at least one user of the plurality of simultaneous users;

selecting a predefined virtual path of the plurality of virtual paths based on the navigation request; and

transmitting ~~[[a]]~~ the sequence of images ~~corresponding to viewpoints~~ along the selected virtual path to the at least one user,

wherein at least one of the synthetic images has an optical axis different than any of the plurality of cameras.

14. (Previously Presented) The method of claim 13, wherein each sequence of images begins with an image from a viewpoint at a first junction and ends with an image from a viewpoint at a second junction.
15. (Previously Presented) The method of claim 13, further comprising queuing a second navigation request received from the at least one user while a sequence of images is being transmitted to the at least one user.
16. (Previously Presented) The method of claim 13, wherein the plurality of cameras comprises pairs of cameras, each pair having at least partially overlapping views and similar viewing angles.
17. (Previously Presented) The method of claim 13, wherein the plurality of cameras comprises cameras arranged substantially parallel to the virtual paths.
18. (Previously Presented) The method of claim 13, wherein clusters of at least some of the plurality of cameras are located near junctions.
19. (Previously Presented) The method of claim 13, wherein the plurality of simultaneous users comprises at least one thousand users.
20. (Currently Amended) A system for efficiently providing a virtual presence within a three-dimensional scene, the system comprising:

a plurality of cameras comprising pairs of cameras, each pair configured to capture at least partially overlapping real-time views of at least a portion of the scene at similar viewing angles;

at least one image processor configured to generate synthetic images corresponding to viewpoints along predefined virtual paths within the scene based on at least two real-time views and combine the images into sequences of images;

at least one router configured to select sequences ~~in response to~~ that best match
respective navigation requests;

at least one processor configured to compose a video stream comprising at least
one sequence selected by the router; and

a plurality of displays coupled to at least one processor via a data network and
configured to display a respective composed video stream,

wherein at least one of the synthetic images is from a perspective different than any of the
plurality of cameras.

21. (Cancelled).
22. (Currently Amended) The system of claim [[21]] 20, wherein at least some of the
sequences of images comprise synthetic images corresponding to the viewpoints along
two or more virtual paths sharing at least one common junction.
23. (Cancelled).
24. (Previously Presented) The system of claim 20, wherein the at least one processor
comprises at least two processors and the system further comprises a load balancer
configured to balance a load among the at least two processors.
25. (Previously Presented) The system of claim 20, wherein the displays are further
configured to transmit navigation requests.
26. (Previously Presented) The system of claim 20, wherein at least one of the displays is a
personal computer.
27. (Previously Presented) The system of claim 20, wherein the data network is the Internet.

28. (Currently Amended) The system of claim 20, wherein the system is configured to provide a virtual presence to more ~~than one thousand~~ simultaneous users than the number of processors.
29. (Previously Presented) The method of claim 7, wherein the at least one of the synthetic images has an optical axis different than any of the plurality of cameras.
30. (Previously Presented) The method of claim 13, wherein the at least one of the synthetic images has an optical axis parallel to an optical axis of at least one of the plurality of cameras.
31. (Previously Presented) The method of claim 13, wherein the at least one of the synthetic images is from a perspective different than any of the plurality of cameras.
32. (Previously Presented) The system of claim 20, wherein the at least one of the synthetic images has an optical axis different than any of the plurality of cameras.